

1. 03743-67 ENT(1) JK

ACC NR: AP6034517

SOURCE CODE: UR/0016/66/000/010/0020/0024

AUTHOR: Shamrayeva, S. A.; Shemanova, G. F.; Vlasova, Ya. V. 12

ORG: none

TITLE: Role of lecithinase in the toxic effect of Cl. perfringens on tissue cultures

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10, 1966, 20-24

TOPIC TAGS: ~~immunobiology, epidemiology~~ Clostridium perfringens, lecithinase, toxin, toxin effect, tissue culture, TISSUE PHYSIOLOGY

ABSTRACT: The effects of whole Cl. perfringens toxin and serologically pure lecithinase (alpha-lethal factor) on sensitive tissue cultures were studied. The effect of both preparations was identical, suggesting that lecithinase is the principal cytotoxic component of the toxin. Results varied according to the sensitivity of the test culture. Orig. art. has: 3 tables. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 18Nov65/ ORIG REF: 002/ OTH REF: 002

UDC: 576.851.555.097.29.098.3:577.153.211.578.085.23

Card 1/1 ho

ACC NR: AP6024438

SOURCE CODE: UR/0016/66/000/007/0052/0054

AUTHOR: Shemanova, G. F.; Vlasova, Ye. V.; Shamrayeva, S. A.

ORG: Institute of Epidemiology and Microbiology im. Gamaleya, AMN SSSR, Moscow
(Institut epidemiologii i mikrobiologii AMN SSSR)

TITLE: Obtaining highly purified *Cl. Oedematiens* toxoids

SOURCE: Zhurnal mikrobiologii, epidemiologii, i immunobiologii, no. 7, 1966, 52-54

TOPIC TAGS: toxoid, chromatography, gel filtration serology, Lyophilization, *TOXIN*,
SERUM, *CHEMICAL PRECIPITATION*

ABSTRACT: The techniques of acid precipitation at the isoelectric point, ammonium sulfate fractionation chromatography, and gel-filtration were used to prepare a highly purified, serologically active preparation. Lyophilized toxoid retained its solubility and initial activity after being stored for one year. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 19Oct65/ ORIG REF: 005/ OTH REF: 001/

Card 1/1

UDC: 615.372:576.851.5551-012

VLASOVA, Ye.V.

White mice as model for the determination of immunogenic properties of *Clostridium sordelli* anatoxins. Zhur. mikrobiol., epid. i immun. 42 no.12:113-117 D '65.
(MIRA 19:1)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

SHEMANOVA, G.F.; VLASOVA, Ye.V.; TSVETKOV, V.S.

Isolation and characteristics of purified lecithinase C of
Clostridium perfringens. Biokhimiia 30 no.4:739-742 J1-Ag '65.
(MIRA 18:8)

1. Oddel ranevykh infektsiy Instituta ep'demiologii i
mikrobiologii imeni N.F. Gamalei AMN SSSR, Moskva.

L 3390-66 EWT(1)/EWA(j)/EWA(b)-2 JK

ACCESSION NR: AP5021651

UR/0218/65/030/004/0739/0742

AUTHOR: Shemanova G. F.; Vlasova, Ye. V.; Tsvetkov, V. S.

TITLE: Isolation and properties of purified lecithinase C from Cl.perfringens.

SOURCE: Biokhimiya, v. 30, no. 4, 1965, 739-742

TOPIC TAGS: toxicology, ammonium sulfate, fungus, biologic antigen

ABSTRACT: The first stage of purification of lecithinase C was carried out by saturation of the mother liquor of the culture with ammonium sulfate. The albumen film formed was removed, centrifuged, and dialyzed for two days. The toxin was concentrated further by precipitation with acid at the isoelectric point under salting out conditions. The yield of lecithinase was approximately 70% with an increase in specific activity of 2-3 times. In addition to the specific activity, the degree of purification was estimated from the decrease in the number of antigen fractions determined by microprecipitation in agar. Subsequent precipitation of the preparation with 25% ammonium sulfate freed the lecithinase from a considerable part of the corresponding antigens. After purification of the lecithinase by

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L 3390-66

ACCESSION NR: AP5021651

sorption of the inert albumens from a 0.05 molar acetate buffer solution (pH 5.6) on DEAE cellulose, the lecithinase contains only one antigen which appears to be an alkali proteinase. The activity of the lecithinase was found to be 12,000 - 15,000 lethal units per mg, determined on white mice. The preparation of lecithinase is serologically homogeneous and is also homogeneous under ultracentrifuging. Orig. art. has: 2 figures

ASSOCIATION: Otdel ranevykh infektsiy, Institut epidemiologii i microbiologii im N. F. Gamalei Akademii meditsinskikh nauk SSSR, Moscow (Department of Wound Infections, Institute of Epidemiology and Microbiology, Academy of Medical Sciences of the SSSR)

SUBMITTED: 03Oct64

ENCL: 00

SUB CODE: LS

NR REF SOV: 007

OTHER: 005

Card 2/2 *md*

MAYOROVA, I.P.; VLASOVA, Ye.V.; ORLOVA, N.G.

Role of peptides in the formation of toxins by *Clostridium oedematians*. Zhur.mikrobiol., epid. i immun. 42 no.2:95-99 F 165. (MIRA 18:6)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

SHEMANOVA, G.F.; VLASOVA, Ye.V.; SHAMRAYEVA, S.A.

Action of proteinases of *Clostridium oedematiens* and *Clostridium perfringens* on homologous and heterologous toxins. *Mikl. eksp. biol. i med.* 57 no.4:80-83 Ap '64. (MIRA 18:3)

1. Otdel ranevykh infektsiy Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Moskva. Submitted March 20, 1963.

VLASOVA, Ye.V.; SOLOV'YEVA, N.I.; Prinimala uchastiye PANITSKAYA, L.D.

A simple method for the production of a highly active collagenase preparation. Vop. med. khim. 8 no.4:424-428 11-Ag '62.

(MIRA 17:11)

1. Laboratoriya biokhimi i khimicheskoy patologii belkov Instituta biologicheskoy i meditsinskoy khimii AN SSSR i otdel ranevykh infektsiy Instituta epidemiologii i mikrobiologii imeni Gamalei AN SSSR, Moskva.

VLASOVA, Ye.V.; KUZ'MINA, A.P.

Immunological characteristics of the purified and concentrated
anatoxin of *Clostridium sordellii*. Report No. 2. Zhur.mikrobiol.,
epid. i imm. 41 no. 2:76-80 F '64. (MIRA 17:9)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

YEFIMOV, A.F.; KRAVCHENKO, S.M.; VLASOVA, Ye.V.

Mineralogy of alkali pegmatites of the Inagli massif. Trudy
IMGRE no.16:141-175 '63. (MIRA 16:8)

VLASOVA, Yekaterina Vasil'yevna; ALEKSANDROVA, N., red.; BEYSHENOV, A.,
tekh. red.

[We are raising standards of agriculture] Povyshaem kul'-
turu zemledeliia. Frunze, Kirgizgosizdat, 1963. 23 p.
(MIRA 17:2)

1. Kolkhoz imeni Engel'sa Kalininskogo kolkhozno-sovkhoznogo
proizvodstvennogo upravleniya (for Vlasova).

KRAVCHENKO, Svet Moiseyevich; VLASOVA, Yelena Vladimirovna; LEONT'YEV, L.N.,
doktor geol.-mineral.nauk, otv.red.; VLASOV, K.A., glavnyy red.;
VERSTAK, G.V., red.izd-va; PRUSAKOVA, T.A., tekhn.red.

[Alkali rocks in the central Aldan] Shchelochnye porody Tsentral'no^{go}
Aldana. Moskva, Izd-vo Akad. nauk SSSR, 1962. 188 p. (Akademiia
nauk SSSR. Institut mineralogii, geokhimii i kristalloghimii redkikh
elementov. Trudy, no.14). (MIRA 16:5)

1. Chlen-korrespondent AN SSSR (for Vlasov).
(Aldan Plateau--Rocks, Igneous)
(Aldan Plateau--Trace elements)

KRAVCHENKO, S.M.; VLASOVA, Ye.V.

Characteristics of the distribution of accessory minerals
in alkali rocks of the Mesozoic magmatic complex in the
central Aldan. Krat. soob. IMGRE no.1:26-29 '60.
(MIRA 17:3)

KRAVCHENKO, S.M.; VLASOVA, Ye.V.; KAZAKOVA, M.Ye.; ILYUKHIN, V.V.;
ABRASHEV, K.K.

Innelite, a new barium silicate. Dokl. AN SSSR 141 no.5:1198-1199
D '61. (MIRA 14:12)

1. Institut mineralogii, geokhimii i kristalloghimii redkikh
elementov AN SSSR. Predstavleno akademikom N.V. Belovym.
(Yakutia--Barium silicates)
(Minerals)

VLASOVA, Yr. V.

PHASE I BOOK EXPLOITATION

807/5740

31

Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallogicheskikh redkikh elementov

Voprosy mineralogii, geokhimii i genesisov raznoznachnykh redkikh elementov
(Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements)
Moscow, Izd-vo AN SSSR, 1960. 253 p. (Series: Its: Trudy, vvp. 4) Errata
printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR;
Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. S. Tarasov;
Tech. Ed.: P. S. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 23 articles on the formation, geology,
mineralogy, petrography, and geochemistry of deposits of rare elements in
Siberia and [Soviet] Central Asia. The distribution and characteristics of
rare elements found in these areas as well as some quantitative and qualitat-
tive methods of investigating the rocks and minerals in which they are found,

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Problems in Mineralogy (Cont.)

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or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

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31

Problems in Mineralogy (Cont.)

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31

Problems in Mineralogy (Cont.)

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Leksin, V. N. Prospects in the Industrial Extraction of Selenium
and Tellurium From the Products of Copper-Molybdenum Ore Processing

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AVAILABLE: Library of Congress

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JA/4-11-61
11-14-61

KRAVCHENKO, S.M.; VIASOVA, Ye.V.; PINEVICH, N.G.

The new mineral batBSITE. Dokl.AN SSSR 133 no.3:657-660
Jl '60. (MIRA 13:7)

1. Institut mineralogii, geokhimii i kristalloghimii redkikh
elementov Akademii nauk SSSR. Predstavleno akad. N.V.Belovym.
(Aldan Plateau—Silicates)

ISPOLATOVSKAYA, M.V.; BLAGOVESHCHENSKIY, V.A.; VLASOVA, Ye.V.; KUZ'MINA, A.P.

Electrophoretic and immunochemical investigations of *Clostridium*
oedematiens anatoxin. Zhur.mikrobiol.epid. i imun. 30 no.1:54-48
Ja '58. (MIRA 12:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN
SSSR.

(CLOSTRIDIUM

oedematiens anatoxin, electrophoretic &
immunochemical aspects (Rus))

F-6

USSR / Microbiology. Anaerobic Bacilli.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72217.

Author : Vinogradova, I. N., Vlasova, Ye. V., Palkina, N. A.
Inst : General Directorate of the Institutes of Vaccines
and Sera of the Ministry of Public Health of
the USSR.

Title : Casein Medium for Production of the Anatoxin
B. oedematiens.

Orig Pub: Materialy po obmenu opytom. Gl. upr. in-tov
vaktsein i syvorotok M-va zdravookhr. SSSR,
1956, 2/52. 61-65.

Abstract: A method is described for the preparation of a
nutrient medium from hydrochloric acid hydroly-
sis of casein and a liver concoction used for
obtaining anatoxin B. oedematiens (BC). In

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USSR / Microbiology. Anaerobic Bacilli.

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Abs Jour: Ref Zhur-Biol., No 16, 1958, 72217.

Abstract: this medium there was successfully obtained a
BO toxin which contains 2,000-10,000 ULM/ml.
-- Yu. Z. Gondon.

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83

VLASOV, Yu.G.

Water vapor pressure over NaCl solutions and the activity
coefficients of NaCl at 45°C. Zhur. fiz. khim. 37 no.11:
2586-2587 N°63. (MIRA 17:2)

1. Leningradskiy gosudarstvennyy universitet.

VLASOV, Yu.I., kand. biolog. nauk

Recent developments in the study of viruses. Zashch. rast.
ot vred. i bol. 8 no.3:51-52 Mr '63. (MIRA 17:1)

1. Vsesoyuznyy institut zashchity rasteniy.

EELINSKIY, Vasil'y Alekseyevich; POBIYAKHO, Vasil'y Afanas'yevich;
RESHETOV, V.D., otv. red.; VLASOVA, Yu.V., red.; BRAYNINA,
M.I., tekhn. red.

[Aerology]Aerologiya. Leningrad, Gidrometeoizdat, 1962. 463 p.
(MIRA 16:2)
(Atmosphere)

TVERSKOY, Pavel Nikolayevich. Primal uchastiye KIRYUKHIN, B.V.;
SELEZNEVA, Ye.S., red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I.,
tekhn. red.; VOLKOV, N.V., tekhn. red.

[Course in meteorology; the physics of the atmosphere] Kurs me-
teorologii; fizika atmosfery. Pod red. E.S.Seleznevoi. Lenin-
grad, Gidrometeoizdat, 1962. 669 p. (MIRA 16:2)
(Atmosphere)

BLYUMINA, L.I.; SAGATOVSKIY, N.V., redaktor; VLASOVA, Yu.V., redaktor;
BRYANINA, M.I., tekhnicheskiiy redaktor.

[Analysis of the recurrence of certain synoptic processes] analiz
povtornosti nekotorykh sinopticheskikh protsessov. Leningrad,
Gidrometeorologicheskoe izd-vo, 1954. 104 p.[Microfilm] (MLRA 7:11)
(Meteorology--Observations)

KONDRAT'YEV, Kirill Yakovlevich; TVERSKOY, P.N., professor, redaktor;
VLASOVA, Yu.V., redaktor; BRAYNINA, M.I., tekhnicheskij redaktor.

[Solar radiation] Luchistaya energiya solntsa. Pod red. P.N.Tver-
skogo. Leningrad, Gidrometeorologicheskoe izd-vo, 1954. 599 p.
(Solar radiation) (MLRA 8:1)

POGOSYAN, Kh.P.; VLASOVA, Yu.V., redaktor. BRAYNINA, M.I. tekhnicheskii
redaktor

[Planetary frontal zones in the Northern and Southern Hemispheres]
Planetarnye frontal'nye zony v severnom i iuzhnom polushariakh.
Leningrad, Gidrometeorologicheskoe izd-vo, 1955. 57 p. (MLRA 8:8)
(Meteorology)

GILBOV, Petr Aleksandrovich; KAROL', B.P., redaktor; VLASOVA, Yu. V.
redaktor; SOLOVETCHIK, A.A., tekhnicheskij redaktor

[Science of the weather] Nauka o pogode. Leningrad, Gidro-
meteorologicheskoe izd-vo, 1955. 110 p. (MLRA 8:9)
(Meteorology)

VLASOVA, YU.V.

OGNEVA, Tat'yana Aleksandrovna, kandidat geograficheskikh nauk; LAYKHT-
MAN, D.L., doktor fiziko-matematicheskikh nauk, redaktor; VLASOVA,
Yu.V., redaktor; SOLOVEYCHIK, A.A., tekhnicheskij redaktor

[Some characteristics of heat balance of an active surface
(according to observations made at Koltush)] Nekotorye osoben-
nosti teplovogo balansa deiatel'noi poverkhnosti (po materialam
nabliudenii v Koltpushakh. Leningrad, Gidrometeorologicheskoe
izd-vo, 1955. 119 p. (MLRA 9:3)

(Heat)

VLASOVA, Yu.V.

ISAYEV, E.A.; DROZDOV, O.A., doktor geograficheskikh nauk; redaktor;
VLASOVA, Yu.V., redaktor; SOLOVYCHIK, A.A., tekhnicheskii
redaktor.

[Synoptic processes over the Atlantic Ocean and Eurasia] Sinop-
ticheskie protsessy nad Atlanticheskim okeanom i Evraziei. Pod
red. O.A. Drozdova. Leningrad, Gidrometeorologicheskoe izd-vo,
1955. 210 p. (MLRA 8:8)
(Meteorology)

GANDIN, Lev Semenovich; LAIKHTMAN, David L'vovich; MATVRIYEV, Leonid Tikhonovich; YUDIN, Mikhail Isaakovich; PYATYGINA, K.V., redaktor; VLASOVA, Yu.V., redaktor; SOLOVEYCHIK, A.A., tekhnicheskii redaktor.

[Principles of dynamic meteorology] Osnovy dinamicheskoi meteorologii. Pod red. D.L.Laikhtmana, M.I. Udina. Leningrad, Gidrometeorologicheskoe izd-vo, 1955. 646 p. (MIRA 9:5)
(Meteorology)

SHLYAKHOV, Vasil'y Ivanovich; KASTROV, V.G., redaktor; VLASOVA, Yu.V.,
redaktor; BRAYNINA, M.I., tekhnicheskij redaktor

[Research on the balance of long-wave radiation in the troposphere]
Issledovanie balans dlinnovolnnoi radiatsii v troposfere. Pod
red. V.G.Kastrova. Leningrad, Gidrometeorologicheskoe izd-vo,
1956. 84 p. (MIRA 10:1)
(Radiation)

GRABOVSKIY, Rostislav Ivanovich; TVERSKOY, P.N., redaktor; VLASOVA, Yu.V.,
redaktor; FLAUM, M.Ya., tekhnicheskii redaktor

[Condensation nuclei in the atmosphere] Atmosfernye ladra dondensatsii.
Pod red. P.N.Tverskogo. Leningrad, Gidrometeorologicheskoe izd-vo,
1956. 163 p. (MIRA 10:1)
(Atmospheric nucleation)

12-12-57, 40 1
IVANOV, G.S., otvetstvennyy red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I.,
tekhn.red.

[Instructions for hydrometeorological stations and posts]
Nastavlenie gidrometeorologicheskim stantsiham i postam.
Izd.2-oe. Leningrad, Gidrometeor.izd-vo. No.9. [Hydrometeoro-
logical observations at ocean stations] Gidrometeorologicheskie
nabliudeniia na morskikh stantsiiakh. Pt.1. [Hydrological
observations at the shore] Pribrezhnye gidrologicheskie nabliu-
deniia. 1956. 290 p. (MIRA 11:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologi-
cheskoy sluzhby.

(Oceanography)

(Hydrology)

VLASOVA, I. V.

GOL'TSBERG, Ida Arturovna; RUDENKO, A.I., otvetstvennyy redaktor; VLASOVA,
Yu.V., redaktor; BRAYNINA, M.I., tekhnicheskii redaktor

[Microclimate and its importance in agriculture] Mikroklimat i ego
znachenie v sel'skom khoziaistve. Leningrad, Gidrometeor.izd-vo,
1957. 65 p. (MIRA 10:7)
(Climatology)

VLASOVA, Yu. V.

DEVYATOVA, Valentina Aleksandrovna; PINUS, N.Z., otvetstvennyy redaktor;
VLASOVA, Yu.V., redaktor; BRAYNINA, M.I., tekhnicheskiiy redaktor.

[Microaerological studies of the lower kilometric layer of the
atmosphere] Mikroaerologicheskie issledovaniia nizhnego kilometro-
vogo sloia atmosfery. Leningrad, Gidrometeor.izd-vo, 1957, 143 p.
: (MIRA 10:5)

(*atmosphere)

VINSON, V.
KHAKHALIN, Viktor Stepanovich, kandidat tekhnicheskikh nauk; KOSTAREV, V.V.,
otvetstvennyy redaktor; VIASOVA, Yn. V., redaktor; BRAYNINA, M.I.,
tekhnicheskiy redaktor

[Radio engineering in aerology] Radiotekhnika v aerologii. Lenin-
grad, Gidrometeor.izd-vo, 1957. 263 p. (MLRA 10:7)
(Radiosondes) (Radar meteorology)

POCHTAREV, Viktor Ivanovich, PUDOVKIN, I.M., otv.red.; VLASOVA, Yu.V., red.;
SOLOVEYCHIK, A.A., tekhn.red.

[Earth is a large magnet] Zemlia - bol'shoi magnit. Leningrad,
Gidrometeor, izd-vo, 1958. 58 p. (MIRA 11:9)
(Magnetism, Terrestrial)

RUSIN, Nikolay Petrovich; VLASOVA, Yu.V., red.; FLAUM, M.Ya., tekhn.red.

[Climate of the Antarctic regions] Klimat Antarktidy. Leningrad,
Gidrometeor. izd-vo, 1959. 111 p. (MIRA 12:7)
(Antarctic regions--Climate)

KHROGIAN, Aleksandr Khristoforovich; POGOSYAN, Kh.P., otv.red.;
VLASOVA, Yu.V., red.; VLADIMIROV, O.G., tekhn.red.

[An outline of the development of meteorology] Ocherki
razvitiia meteorologii, Izd.2., perer. Leningrad,
Gidrometeor, izd-vo. Vol.1. 1959. 427 p. (MIRA 12:8)
(Meteorology)

NIKANDROV, Vladislav Yakovlevich; BAZILEVICH, V.V., otv.red.; VLASOVA,
Yu.V., red.; VOLKOV, N.V., tekhn.red.

[Artificial modification of clouds and fogs; microphysical
principles] Iskusstvennye vozdeistviia na oblaka i tumany;
mikrofizicheskie osnovy. Leningrad, Gidrometeor.izd-vo, 1959.
189 p. (MIRA 13:3)

(Weather control)

ZAVARINA, Mariya Vasil'yevna; YUDIN, Mikhail Isaakovich. Prinimali uchastiye: DMITRIYEVA-ARRAGO, L.R.; LOBANOVA, V.Ya.; BELOUSOV, S.L.; ZELIKOVSKIY, V.E.; POKROVSKAYA, T.V., otv. red.; GONDIN, L.S., otv. red.; VLASOVA, Yu.V., red.; IVKOVA, G.V., tekhn. red.

[Calculating machines and their use in meteorology and climatology] Schetnye mashiny i ikh ispol'zovanie v meteorologii i klimatologii. Leningrad, Gidrometeor. izd-vo, 1963. (MIRA 17:3)
263 p.

KONSTANTINOV, Aleksey Rodionovich; STRUZER, L.R., otv. red.;
VLASOVA, Yu.V., red.; ARONS, R.A., tekhn. red.; BRAYNINA,
M.I., tekhn. red.

[Evaporation in nature] Isparenie v prirode. Leningrad,
Gidrometeorizdat, 1963. 589 p. (MIRA 16:11)
(Evaporation (Meteorology))

KONDRAT'YEV, Kirill Yakovlevich; VLASOVA, Yu.V., red.; BRAYNINA, M.I.,
tekhn. red.

[Meteorological satellites] Meteorologicheskie sputniki. Le-
ningrad, Gidromet.izd-vo, 1963. 310 p. (MIRA 16:4)
(Artificial satellites)

YUDIN, Mikhail Isaakovich; TITOV, S.I., otv. red.; VLASOVA, Yu. V.,
red.; BRAYNINA, M.I., tekhn. red.

[New methods and problems in short-range weather forecasting]
Novye metody i problemy kratkosrochnogo prognoza pogody. Le-
ningrad, Gidrometeoizdat, 1963. 403 p. (MIRA 16:5)
(Numerical weather forecasting)

YUDIN, M.I., doktor fiz.-mat. nauk, prof., red.; VLASOVA, Yu.V., red.;
BRAYNINA, M.I., tekhn. red.

[Papers from the Conference of Coordinating Commission on
Numerical Methods of Forecasting] Materialy soveshchaniia. Pod
red. M.I. Iudina. Leningrad, Gidrometeoizdat, 1961. 133 p.
(MIRA 16:3)

1. Russia (1923- U.S.S.R.) Koordinatsionnaia komissiia po chislennym metodam prognoza.
(Numerical weather forecasting)

SELEZNEVA, Ye.S., otv. red.; GUSHCHIN, G.P., otv. red.; VLASOVA, Yu.V.,
red.; SERGEYEV, A.N., tekhn. red.

[Data on the chemical composition of atmospheric precipitation
and total ozone content of the atmosphere at various points of the
U.S.S.R.; materials of the International Geophysical Year and
International Geophysical Cooperation for 1957-1959] Danyye po khi-
micheskomu sostavu atmosferykh osadkov i obshchemu soderzhaniyu
ozona v atmosfere v razlichnykh punktakh SSSR; materialy MGG i
MGS za 1957-1959 gg. Leningrad, Gidrometeoizdat, 1961. 81 p.

1. Leningrad. Glavnaya geofizicheskaya observatoriya.
(Precipitation(Metereology)) (Air—Analysis) (Ozone)
(MIRA 15:9)

NELEPETS, Vasilii Stanislavovich, kand. tekhn. nauk, dots.;
STEPANENKO, Vladimir Danilovich, kand. fiz.-mat. nauk, dots.;
KHAKHALIN, V.S., otv. red.; VLASOVA, Yu.V., red.; SERGEYEV,
A.N., tekhn. red.

[Use of radiolocation methods in meteorological observations]
Radiolokatsionnye metody meteorologicheskikh nabludeni.
Leningrad, Gidrometeoizdat, 1961. 174 p. (MIRA 15:4)
(Radar meteorology)

LAYKHTMAN, David L'vovich; VLASOVA, Yu.V., red.; SOLOVEYCHIK, A.A.,
tekhn. red.

[Physics of the atmospheric boundary layer] Fizika pogramich-
nogo sloia atmosfery. Leningrad, Gidrometeor.izd-vo, 1961.
252 p. (MIRA 15:1)

(Meteorology)

KALINOVSKIY, Aleksandr Boleslavovich; PINUS, Naum Zinov'yevich. Prinimal uchastiye SMETER, S.M.; STEPANENKO, V.D., otv. red.; ZABRODSKIY, G.M., otv. red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I., tekhn. red.

[Aerology] Aerologiya. Leningrad, Gidrometeor. izd-vo. Pt.1.
[Methods of aerological measurements] Metody aerologicheskikh
izmerenii. 1961. 517 p. (MIRA 15:2)
(Meteorology—Observations)

BELEVICH, V.V.; SHVETSOVA, V.F.; ZHITYAYKINA, N.P.; BYKADOROV, I.S.;
IVANOV, G.I., kand.sel'skokhoz.nauk; GERMANISHVILI, V.Sh.,
kand.geogr.nauk, retsenzent; SOKOLOV, I.F., retsenzent;
KALMYKOVA, V.V., retsenzent; LYUBOMUDROVA, S.V., retsenzent;
KRUSHKOVA, T.S., retsenzent; BOYKOVA, K.G., retsenzent;
NOVSKIY, V.A., otv.red.; VLASOVA, Yu.V., red.; SERGEYEV, A.N.,
tekhn.red.

[Agroclimatic manual for the Maritime Territory] Agroklimaticheskii
spravochnik po Primorskoy kraiu. Leningrad, Gidrometeor.izd-vo,
1960. 129 p. (MIRA 14:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. Primorskoye upravleniye. 2. Vladivostokskaya gidrometeorologicheskaya observatoriya (for Belevich, Shvetsova, Zhityaykina, Bykadorov). 3. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskii institut (for Germanishvili, Sokolov, Kalmykova, Lyubomudrova, Krushkova, Boykova).
(Maritime Territory--Crops and climate)

ADAMOV, Pavel Nikolayevich; VLASOVA, Yu.V., red.; FLAUM, M.Ya., tekhn.
red.

[Local weather signs] Mestnye priznaki pogody. Leningrad, Gidro-
meteor. izd-vo, 1961. 33 p. (MIRA 14:9)
(Weather forecasting)

YUDIN, M.I., doktor fiz.-mat. nauk, prof., red.; VLASOVA, Yu.V., red.;
BRAYNINA, M.I., tekhn. red.

[Materials of the Conference of the Coordinating Commission on
Numerical Forecast Methods] Materialy soveshchaniia. Pod red.
M.I. Iudina. Leningrad, Gidrometeor. izd-vo, 1961. 133 p.
(MIRA 14:8)

1. Russia(1923- U.S.S.R.) Koordinatsionnaya komissiya po
chislennym metodam prognoza.
(Meteorology)

BELOBROV, Andrey Pavlovich; VIL'NER, B.A., otv. red.; VLASOVA, Yu.V.,
red.; BRAYNINA, M.I., tekhn. red.

[Radio navigation phase systems in hydrography and oceanography]
Fazovye radionavigatsionnye sistemy v gidrografii i okeanologii.
Leningrad, Gidrometeor. izd-vo, 1961. 169 p. (MIRA 14:7)
(Radio in navigation)

GANDIN, L.S. [translator], red.; DUBOV, A.S. [translator], red.; VLASOVA,
Yu.V., red.; VLADIMIROV, O.G., tekhn.red.

[Numerical methods of weather prediction; collection of translated
articles] Chislennyye metody prognoza pogody; sbornik perevodnykh
statei. Pod red. L.S.Gandina i A.S.Dubova. Leningrad, Gidro-
meteor.izd-vo, 1960. 281 p. (MIRA 13:12)
(Weather forecasting)

KONDRAT'YEV, Kirill Yakovlevich; FILIPOVICH, Ol'ga Petrovna; VLASOVA,
Yu.V., red.; HRAYNINA, M.I., tekhn.red.

[Thermal regime of the upper atmosphere] Teplovoi rezhim
verkhnikh sloev atmosfery. Leningrad, Gidrometeor.izd-vo,
1960. 355 p. (MIRA 13:11)
(Atmosphere, Upper) (Atmospheric temperature)

GIRS, Aleksandr Aleksandrovich. Prinimali uchastiye: GUROV, V.P., dotsent; KHRABROV, Yu.B., kand.fiziko-matem.nauk. POKROVSKAYA, T.V., otv.red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I., tekhn.red.

[Fundamentals of long-range weather forecasting] Osnovy dolgo-srochnykh prognozov pogody. Leningrad, Gidrometeor.izd-vo, 1960. 559 p. (MIRA 13:7)

1. Tsentral'nyy institut prognozov (for Khrabrov). (Weather forecasting)

66909

SOV/29-59-11-20/31

15-9000

25(1)
AUTHORS:

Bagretsova, I., Vlasova, Z. Engineers of the Scientific
Research Institute of the Tire Industry

TITLE:

Metallocord

PERIODICAL:

Tekhnika molodezhi, 1959, Nr 11, p 37 (USSR)

ABSTRACT:

The authors report on the use of metallocord for tire production. The durability of metallocord is 5 times higher than that of viscose-, and 3 times higher than that of caprone cord. Tires can be produced 2- to 4-ply instead of 8- to 14-ply as is usual for textile tires. Metallocord tires can stand a higher load. Because of the lower thickness of tread, and good heat conductivity of the metallocord, it is possible to use thicker protectors. As the metallocord does not stretch, the wear of tires and treads becomes smaller. Steel is used as basic material for the production of metallocord. Differently thick ropes are twisted from steel wire 0.15 mm thick. These ropes are wound over a rubber layer onto a special drum, and covered and rolled with another rubber layer of the same thickness. The pressed metallocord is then used for the tire production. There are two types of tires possible: standard tires with the cord

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Card 1/2

66909

Metallocord

SOV/29-59-11-28/31

threads intersecting at an angle of about 90°, and tires where the cord runs meridionally.- The Omsk Tire Factory was established in the first years of the National War. The factory employs several thousands of workers. Production was quadrupled in the first 10 postwar years. In the meantime, the old machinery was completed and replaced. This allowed a further production increase of 30% in the past 3 years. A number of talented inventors and efficiency experts grew up in the factory, including A. Gavrilov, A. Kol'tsov, V. Guzeyev, I. Klimov; B. Markov and K. Mishin, mechanics; T. Terekhova and G. Limovetskiy, engineers; V. Sapronov, M. Gil'shteyn, V. Filipov, technical engineers, and others. About 4,000 inventions and efficiency suggestions have been realized in recent years. This resulted in savings of 25 million rubles for the factory. The factory will soon start production of metallocord tires. There are 3 figures and 1 table. 4

ASSOCIATION:

Nauchno-issledovatel'skiy institut shinnoy promyshlennosti
(Scientific Research Institute of the Tire Industry)

Card 2/2

- VLASOVA, Z.A.; SIPOVSKIY, P.V. (Leningrad)

Characteristics of peptic ulcer of the stomach and its complications,
according to autopsy data in Leningrad from 1952-1956. Klin.med. 37
no.10:54-58 0 '59. (MIRA 13:2)

1. Iz kafedry patologicheskoy anatomii (zaveduyushchiy - prof. P.V.
Sipovskiy) Leningradskogo gosudarstvennogo instituta dlya usovershenst-
vovaniya vrachey imeni S.M. Kirova (direktor N.I. Blinov).
(PEPTIC ULCER pathol.)

T

Country : USSR
Category: Human and Animal Physiology. Action of Physical
Factors. Ionizing Radiation.

Abs Jour: RZhBiol., No 19, 1958, 09379

Author : Shcherban, E.I.; Vlasova, Z.I.

Inst : -

Title : Morphological Changes in the Kidneys During Acute
Radiation Sickness, Produced by Radioactive Phosphorus.

Orig Pub: Tr. Vses. konferentsii po med. radiol. Eksperim. med.
radiol. M., Medgiz, 1957, 204-208.

Abstract: Rabbits and mice were administered internally or
subcutaneously P^{32} in doses of 7-66 μ curies/g.
In the majority of cases development of acute radia-
tion sickness was noted with characteristic clinical
symptoms and morphological manifestations, observed

Card : 1/2

T-145

VLASOVA, Z.A.

Method of reduction to ordinary differential equations. Trudy
mat. inst. 53:16-36 '59. (MIRA 12:9)
(Differential equations)

VLASOVA, Z. A.

16(1)

PHASE I BOOK EXPLOITATION

SOV/2217

Akademiya nauk SSSR. Matematicheskiy institut imeni V. A. Steklova

Raboty po priblizhennomu analizu (Works on Approximate Analysis) Moscow, AN SSSR, 1959. 391 p. (Its: Trudy, tom. 53) Errata slip inserted. 2,200 copies printed.

Ed.: L. V. Kantorovich, Corresponding Member, USSR Academy of Sciences, Professor; Resp. Ed.: I. G. Petrovskiy, Academician; Deputy Resp. Ed.: S. M. Nikol'skiy, Professor; Ed of Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Arons.

PURPOSE: This book is intended for professional mathematicians interested in approximation methods.

COVERAGE: The book contains a collection of works in the field of approximate computations completed at the Leningrad Branch of the Mathematics Institute imeni V. A. Steklov of the Academy of Sciences, USSR, from 1953 to 1958. All the works contained in this book are published in full for the first time. The theoretical study of approximation methods conceptually related to the

Card 1/5

Works on Approximate Analysis

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application of methods of functional analysis has a significant place in the book. In addition, the book contains groups of works on the following subjects: 1) approximate methods of solving the boundary value problems of mathematical physics, 2) numerical methods in the theory of functions, 3) numerical methods of linear algebra, and 4) numerical computation of an indefinite integral. The editor thanks the following people: V. I. Krylov, V. N. Faddeyova, and V. P. Il'in, scientific workers at the Institute, for editing the articles; Ye. A. Meynik, T. P. Akimova, K. Ya. Alfer'yeva and G. A. Gaber, workers at the Institute's laboratory, for computing the tables; Professor S. M. Lozinskiy for his critical review of many of the works; A. A. Dorodnitsyny and his colleagues for reviewing the works published; Professors D. K. Faddeyev and Yu. Ye. Alenitsyn for final review of the book.

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11-10-59

SIPOVSKIY, P.V.; VLASOVA, Z.A. (Leningrad)

Atherosclerosis morbidity according to autopsy data in Leningrad during the period 1954-1958. Klin.med. 39 no.5:65-73
My '61. (MIRA 14:5)

1. Iz prozektorskoy komissii Leningradskogo gorodskogo otdela
zdravookhraneniya i kafedry patologicheskoy anatomii (zav. -
prof. P.V. Sipovskiy) Gosudarstvennogo instituta dlya usover-
shenstvovaniya vrachey imeni S.M. Kirova.
(ARTERIOSCLEROSIS)

GIRGOLAV, S.S., professor; BLINOV, N.I., professor; BALAKINA, V.S., professor; KEMML'NITSKIY, O.K., kandidat meditsinskikh nauk; BRIGNNIK, Ye.V., kandidat meditsinskikh nauk; BOYKO, E.K., kandidat meditsinskikh nauk; BYSTROVA, V.V., kandidat meditsinskikh nauk; VLASOVA, Z.A., kandidat meditsinskikh nauk; ANTIPINA, A.N., nauchnyy ~~sovetnik~~

Petr Vasil'evich Sipovskii. Arkh.pat. 18 no.8:131-132 '56. (MLRA 10:2)

1. Deystvitel'nyy cheln AMN SSSR (for Girgolav).
 2. Direktor Instituta usovershenstvovaniya vrachey imeni S.M.Kirova (for Blinov).
 3. Direktor Nauchno-issledovatel'skogo instituta travmatologii i ortopedii (for Balakina)
- (SIPOVSKII, PETR VASIL'EVICH)

S/517/62/066/000/006/006
B172/B112

AUTHOR: Vlasova, Z. A.

TITLE: Use of a net method for a non-linear one-dimensional variational problem

SOURCE: Akademiya nauk SSSR. Matematicheskii institut. Trudy. v. 66. Moscow, 1962. Raboty po avtomaticheskomu programmirovaniyu, chislennym metodam i funktsional'nomu analizu. 196-204

TEXT: The variational problem under consideration consists in finding a function $y(x)$ that passes through given points $A(a, a_1)$ and $B(b, b_1)$ and that minimizes the integral $\int_a^b \psi(x, y, y') dx$. After the application a quadrature formula with the coefficient $C_k > 0$ ($k = 0, \dots, n + 1$) and the choice a function $C(x)$ having the values C_k at the points $x_0 = a < x_1 < \dots < x_n < x_{n+1} = b$, the formulated problem can be approximated

Card 1/2

S/517/62/066/000/006/006
B172/B112

Use of a net method for a ...

by a problem which consists in finding a vector $Y = (a_1, y_1, \dots, y_n, b_1)$,

for which the sum $\sum_{k=0}^n \psi(x_k, y_k, \frac{y_{k+1} - y_k}{\Delta x_k})$ reaches a minimum. Here,

$\psi(x, y, y') = C(x)\varphi(x, y, y')$. As a necessary condition the following equations are obtained:

$$\frac{\partial \psi}{\partial y} \Big|_k - \frac{1}{\Delta x_k} \frac{\partial \psi}{\partial y'} \Big|_k + \frac{1}{\Delta x_{k-1}} \frac{\partial \psi}{\partial y'} \Big|_{k-1} = 0 \text{ with } \Delta x_k = x_{k+1} - x_k,$$

$$\frac{\partial \psi}{\partial y} \Big|_k = \frac{\partial \psi}{\partial y} \text{ for } x = x_k, y = y_k, y' = \frac{y_{k+1} - y_k}{\Delta x_k}. \text{ Assuming that } \Delta x_k \text{ and}$$

C_k satisfy sufficient conditions, the unambiguous solution of (1) is the Y sought for. A method by Davidenko (DAN SSSR, v. 88, no. 4, 1953, 601-602) is used to solve system (1) which is in general non-linear.

Card 2/2

VLASOVA, Z.A.
VLASOVA, Z.A.; SHCHERBAN', E.I. (Leningrad)

Morphological changes in the kidneys in acute radiation sickness
produced by radioactive phosphorus [with summary in English].
Arkhn.pat. 19 no.9:43-47 '57. (MIRA 10:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V.Sipovskiy)
Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey
imeni S.M.Kirova i patologoanatomicheskoy laboratorii (zav. - prof.
L.V.Funshhteyn) Tsentral'nogo nauchno-issledovatel'skogo rentgeno-
radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.
(KIDNEYS, effect of radiations,
radiophosphorus (Rus))
(PHOSPHORUS, radioactive,
eff. on kidneys (Rus))

EXCERPTA MEDICA Sec 5 Vol. 11/8 Gen. Pathology Aug 58

~~VLASOVA, Z. A.~~
1943. MORPHOLOGICAL CHANGES IN THE KIDNEYS IN ACUTE RADIATION
SICKNESS CAUSED BY RADIOACTIVE PHOSPHORUS (Russian text) -
Vlasova Z. A. and Scherban E. I. - ARKH. PATOL. 1957, 19/9
(43-47) Illus. 3

Four experimental series composed of 17 rabbits and 76 white mice. In the first series (rabbits) 7 mc. P^{32} /g. was administered s.c. In the other 3 series (mice), the P^{32} (up to 66 mc./g.) was administered either orally or s.c. The animals were killed after between 4 hr. and 15 days later. All animals showed haemodynamic disturbances in the kidneys; prestasis, oedema, haemorrhages. The P^{32} becomes concentrated in the epithelial cells of the convoluted tubuli, which show severe dystrophic changes, whereby bacteria also settle down. Brandt - Berlin (V, 14, 16)

VIASOVA, Z. A.

"Morphological Changes in the Diaphragm During Certain Forms of Pulmonary Tuberculosis." Cand Med Sci, Leningrad State Inst for the Advanced Training of Physicians, Leningrad, 1954. (ZhBiol, No 6, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

VLASOVA, Z.A.

Method of difference for a nonlinear one-dimensional variational
problem. Trudy Mat.inst. 66:196-204 '62. (MIRA 15:11)
(Calculus of variations)

S/199/63/004/002/013/013
B107/B102

AUTHOR: Vlasova, Z. A.

TITLE: Numerical realization of the method of the reduction to ordinary differential equations

PERIODICAL: Sibirskiy matematicheskiy zhurnal, v. 4, no. 2, 1963, 475-479

TEXT: The numerical realization of the method described by the author (Approximative solution of boundary value problems for elliptic differential equations by reduction to ordinary differential equations, Dissertation, Matem. in-t im. V. A. Steklova, Ak. nauk SSSR, 1956) is discussed for the Dirichlet problem of the Poisson equation $\Delta u = -p(x, y)$, $u|_{\Gamma} = 0$ with $p(x, y)$ and Γ even with respect to y : $x = a$, $x = b$, $y = \varphi(x)$. The system of formulas required for this purpose is shown in detail. The reduction to Cauchy's problem may meet with difficulties if the fundamental system contains rapidly growing solutions. The spread of the solutions is the higher the narrower the domain in the direction of the y axis. With numerical integration, solutions that are growing rapidly overlap the others. The numerical calculation virtually always leads to the same solution independently of the initial values chosen. In this case the Card 1/2

S/199/63/004/002/013/013

Numerical realization of the method of the ... B187/B102

method for the numerical solution of the Cauchy problem of a linear equation of n -th order described by M. S. Galkin can be used in the construction of a fundamental system of the solutions. (Method of calculating the natural vibrations in the case of dense natural frequencies, Dissertation, Matem. in-t im. V. A. Steklova Ak. nauk SSSR, 1956). If m ($m < n$) solutions of the conjugate equations are known then the order of the initial equation can be reduced by m by using a Green's formula. Thus it is possible to construct the fundamental system step by step without perturbation. The method is illustrated by a numerical example. There is 1 table.

SUBMITTED: August 23, 1961

Card 2/2

VLASOVA, Z.A.

Convergence of the difference method for a one-dimensional variational
problem of the S.N.Bernstein type. Trudy Mat. inst. 84:41-49 '65.
(MIRA 18:9)

VLASOVA, Z.A.; RYBAKOVA, Yu.V.

Numerical implementation of the method of differences for a
nonlinear one-dimensional variational problem. Trudy Mat.
inst. 84:50-59 '65. (MIRA 18:9)

L 20794-66 EWT(d) IJP(c)
ACC NR: AT6003388

SOURCE CODE: UR/2517/65/084/000/0041/0049

AUTHOR: Vlasova, Z. A.

ORG: Mathematics Institute, AN SSSR (Matematicheskiy institut AN SSSR)

TITLE: On the convergence of the difference method for the one-dimensional variation problem of the class of S. N. Bernshteyn (Bernstein)

SOURCE: AN SSSR. Matematicheskiy institut. Trudy, v. 84, 1965. Chislennyye metody i neravenstva v funktsional'nykh prostranstvakh (Numerical methods and inequalities in functional spaces), 41-49

TOPIC TAGS: difference method, differential equation, convergent series, approximate method, minimization, integral function, variational problem, approximation convergence, functional equation

ABSTRACT: The problem on the minimum of the integral

$$I[v] = \int_a^b \varphi(x, y, y') dx$$

with the homogeneous boundary conditions

$$y(a) = y(b) = 0$$

Card 1/3

L 20794-66

ACC NR: AT6003386

is investigated. The subintegral function $\phi(x, y, y')$ has continuous third order derivatives with respect to all three arguments for arbitrary finite y, y' and $x \in [a, b]$ and satisfies the conditions

$$\phi(x, y, y') = |y'|^q [A(x, y) + \varepsilon(x, y, y')],$$

(see S. N. Bernshteyn. Ob uravneniyakh variatsionnogo ischisleniya. Uspekhi matem. nauk, 1941, v. 8, 32-74). There exists a constant K such that

$$f_y(x, y, y') > K > 0,$$

where

$$f(x, y, y') = \frac{\phi_y - \phi_{xy}y' - \phi_{yy'}y''}{\phi_{yy'}},$$

and the Legendre condition

$$\phi_{yy'} \geq \delta > 0$$

is fulfilled. This exact variational problem is modified for an approximate method of solution. The interval $[a, b]$ is divided by points $x_k^{(n)}$ into $n + 1$ equal parts,

$h_n = (b-a)/(n+1)$, and the integral is changed into the sum

$$P(y_1^{(n)}, y_2^{(n)}, \dots, y_n^{(n)}) = \sum_{k=0}^n C_k^{(n)} \phi(x_k^{(n)}, y_k^{(n)}, \frac{\Delta y_k^{(n)}}{h_n}),$$

where

$$\begin{aligned} y_k^{(n)} &= y(x_k^{(n)}), \\ y_0^{(n)} &= y_{n+1}^{(n)} = 0, \end{aligned}$$

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$$x_k^{(n)} = a + kh_n$$

$$\Delta y_k^{(n)} = y_{k+1}^{(n)} - y_k^{(n)}$$

and $C_k^{(n)}$ are coefficients of the quadrature formula with nodes at the points $x_k^{(n)}$.

Subject to certain additional assumptions, the convergence of the approximations thus given is developed such that the minimum of the integral is found for the stated boundary conditions. A system of equations is given for a minimizing functional, and a vector quantity of this functional is shown to be bounded in a manner such that the function $f^*(y)$ which minimizes $I[y]$ is approached as a limit. The author thanks S. G. Mikhlin for his comments on the writing of the paper. Orig. art. has: 31 equations.

SUB CODE: 12/ SUBM DATE: none/ ORIG REF: 004

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(ANESTHESIA, REGIONAL
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PHASE I BOOK EXPLOITATION

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Okhotsimskiy, D. Ye., Kondrasheva, I.L., Vlasova, Z.I., Kazakova, R.K.

Raschet tochechnogo vzryva s uchétom protivodavleniya (Calculation of Point-source Blast Taking Counterpressure into Consideration) Moscow, Izd-vo AN SSSR, 1957. 65 p. (Series: Akademiya nauk SSSR. Matematicheskii institut. Trudy, t. 50) 2,500 copies printed. Resp. Ed.: Petrovskiy, I.G., Academician; Deputy Resp. Ed.: Nikol'skiy, S.M., Professor; Ed. of Publishing House: Gurov, K.P.; Tech. Eds.: Vanyushenkova, V.V., Makuni, Ye. V.

PURPOSE: This volume of the Works of the Mathematics Institute, Academy of Sciences, is written for the specialists working in the field of blast waves.

COVERAGE: This work consists of an introduction and four sections. In the introduction, the authors describe certain Soviet and American studies in this field and outline briefly the methods of solution, the characteristics of the results, and the computation techniques. In section one the statement of the problem is given. Assumed is a gas which satisfies Clapeyron's equation. Density ρ , pressure

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Calculation of Point-source Blast (Cont.)

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p_0 , blast energy E_0 and $\delta = \frac{C}{C_v}$ are taken as original parameters of the problem. Lagrange coordinates S and t are taken as independent variables where S is the coordinate of the particle at the moment of the passage of the blast wave and t is the time from the moment of a blast. By certain equations there are introduced dimensionless Lagrange coordinates ξ and τ , dimensionless pressure p , density ρ , velocity of particles u and dimensionless Eulerian coordinate ξ . In section two the initial system of partial differential equations which describes the adiabatic motion of a gas in dimensionless coordinates is given in the form:

$$(1) \quad \begin{aligned} \frac{\partial u}{\partial \tau} &= - \frac{\xi^2}{\sigma^2} \cdot \frac{\partial p}{\partial \xi} \\ \frac{\partial \xi}{\partial \sigma} &= \frac{\xi^2}{\sigma^2} \cdot \frac{1}{\rho} \\ \frac{\partial \xi}{\partial \tau} &= u \\ \frac{\partial \rho}{\partial \tau} &= 0 \quad (\text{where } \sigma = \frac{p}{\rho r}) \end{aligned}$$

New variables φ , ψ and Θ , connected with dimensionless time, pressure, density and velocity, are introduced and the system of equations (1) is written in final form:

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